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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,459	09/18/2003	Yasuhide Yoshida	03573C/HG	6829

1933 7590 07/29/2004

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EXAMINER

CHEN, VIVIAN

ART UNIT PAPER NUMBER

1773

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



# Office Action Summary

Application No.

10/665,459

Applicant(s)

YOSHIDA ET AL.

Examiner

Vivian Chen

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21, 25-27, 29, 30, 32, 33, 35, 36, 38-40, 42, 44, 45, 47 and 48 is/are rejected.
- 7) ☒ Claim(s) 22-24, 28, 31, 34, 37, 41, 43, 46 and 49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9-2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.



## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 22-24, 28, 31, 34, 37, 41, 43, 46, 49 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-16, 17-20, 32-33, 35-36, 44-45, 47-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 13, 17, the phrase "consisting mainly" is vague and indefinite because the term "consisting" is closed (i.e., exclusionary) language, while "mainly" is open-ended language. It is unclear whether layer R2 is limited to the recited modified polyolefin resin, or whether layer R2 can contain other components.

### ***Claim Rejections - 35 USC § 103***



3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12, 21, 25, 27, 29-30, 38-40, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over YABE ET AL (US 4,362,775).

YABE ET AL discloses a film comprising an polyester layer and an adhesive layer wherein the adhesive layer contains thermoplastic polyester blended with up to 35 parts by weight (pbw) of a polyolefin modified with 1-20 mol% of carboxylic acid groups, wherein the polyester comprises polyethylene terephthalate / isophthalate copolyesters, wherein isophthalate units present in typical amounts up to 5 mol% and diol comonomers such as butanediol in typical amounts of up to 5 mol%. The adhesive layer optionally contains conventional additives such as antioxidants and 0.3-7 wt% titanium oxide pigment. The polyester layer has a typical thickness of 10-100 microns, the adhesive layer has a typical thickness of 2 microns or more, and a ratio of polyester layer thickness to adhesive layer thickness is 1:0.05 to 1:5. The adhesive layer can be preformed by extrusion, followed by application to a metal substrate, or extrusion coated directly onto the metal substrate. The metal substrate is optionally preheated prior to application of a preformed adhesive film layer or application of a coextruded film comprising the adhesive layer and the polyester layer. (entire document) However, the reference does not explicitly disclose the recited grain size.



It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate carboxyl-modified polyolefin into the adhesive layer of YABE ET AL in order to improve the impact resistance and reduce crystallinity. It is conventional in the art to use T-dies (claim 21) to extrude polyester films. Since polyolefins are typically incompatible with polyester resins and since the adhesive layers have low crystallinity, the Examiner has reason to believe that the adhesive layer disclosed in YABE ET AL has plane orientation coefficient values comparable to those recited in claim 30 and would contain particles of polyolefin resin as recited in the claims, therefore the Examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald et al.*, 205 USPQ 594. One of ordinary skill in the art would have selected the melt extrusion temperature of the adhesive layer (claim 38-29) depending on the specific rheological properties desired for specific coating or laminating equipment and polymer compositions. One of ordinary skill in the art would have adjusted the mixing and blending conditions to obtain micron-sized particles to ensure uniform dispersion of the polyolefin resin throughout the adhesive layer.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over # as applied to claims 1, 25 above, and further in view of OKAMURA ET AL (US 5,585,177).

OKAMURA ET AL discloses that it is well known in the art to use chromate-treated metal sheets as recited in claim 26 as substrates for polymeric film coated metal laminates in order to improve interlayer adhesion. (line 40, col. 6 to line 20, col. 7)



It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use chromate-treated metal sheets in the laminates of YABE ET AL in order to improve adhesion between the polyester film and the metal substrate.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (571) 272-1516. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 26, 2004



Vivian Chen  
Primary Examiner  
Art Unit 1773